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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,927	06/19/2003	Chien-Chung Han	HAN0302	6209

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EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT PAPER NUMBER

1772

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/600,927

Applicant(s)

HAN, CHIEN-CHUNG

Examiner

Christopher P Bruenjes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 24-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

#### ***Terminal Disclaimer***

1. The terminal disclaimer filed on May 16, 2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of US Patents 6,506,323 and 6,602,567 has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***WITHDRAWN REJECTIONS***

2. The double patenting rejections of record in the Office Action mailed February 17, 2005, Pages 5-8 Paragraphs 4-5, have been withdrawn due to Applicant's filing of the terminal disclaimer filed May 16, 2005.

#### ***REPEATED REJECTIONS***

3. The 35 U.S.C. 102 rejections of claims 1-3, 5-6, 9, and 14-19 as anticipated by Haggard et al are repeated for the reasons set forth in the previous Office Action mailed February 17, 2005, Pages 8-11 Paragraph 6.

Regarding the newly added limitation to claims 1 and 16 that the plurality of carbonized carbon tubes are "intimately adjoined", Haggard et al teach that in at least one embodiment

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the core only and not the sea section or binder joining the carbonized carbon tubes is a dissolvable polymer component (p.4, paragraph 35). Therefore, in at least that embodiment Haggard et al teach that the sea section or binder remains after carbonization. Thus, the carbonized carbon tubes are "intimately adjoined." Furthermore, even in an embodiment in which the sea section or binder is a dissolvable polymer component, the definition of dissolvable polymer used in the Haggard et al reference includes partially dissolvable polymers, which means that a plurality of the carbonized carbon tubes could still be intimately adjoined while some of the sea section is dissolved.

4. The 35 U.S.C. 103 rejections of claims 4, 7, 10-13, 20, 21, and 23 over Haggard et al in view of Tour et al are repeated for the reasons set forth in the previous Office Action mailed February 17, 2005, Pages 12-13 Paragraph 7.

5. The 35 U.S.C. 103 rejection of claim 8 over Haggard et al in view of Moy et al is repeated for the reasons set forth in the previous Office Action mailed February 17, 2005, Pages 14-15 Paragraph 8.

***ANSWERS TO APPLICANT'S ARGUMENTS***

6. Applicant's arguments regarding the double patenting rejections of record have been considered but they are moot since the rejections have been withdrawn.

7. Applicant's arguments regarding the 35 U.S.C. 102 rejections of claims 1-3, 5-6, 9, and 14-19 as anticipated by Haggard et al have been fully considered but they are not persuasive.

In response to Applicant's argument that the carbonized carbon tubes are "intimately adjoined" is not taught by Haggard et al, Haggard et al teach that in at least one embodiment the core only and not the sea section or binder joining the carbonized carbon tubes is a dissolvable polymer component (p.4, paragraph 35). Therefore, in at least that embodiment Haggard et al teach that the sea section or binder remains after carbonization. Thus, the carbonized carbon tubes are "intimately adjoined." Furthermore, even in an embodiment in which the sea section or binder is a dissolvable polymer component, the definition of dissolvable polymer used in the Haggard et al reference includes partially dissolvable polymers, which means that a plurality of the carbonized carbon tubes

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could still be intimately adjoined while some of the sea section is dissolved.

In response to Applicant's argument that the carbon tubes claimed are assembled/adjoined in their precursor form prior to their being carbonized, when the carbon tubes are assembled/adjoined is not germane to the issue of patentability of the article. Assembling prior to carbonization or after carbonization can make the same final article, absent the showing of unexpected result.

In response to Applicant's argument that Haggard et al teach carbon tubes spaced apart rather than the claimed intimately adjoined, as stated above in at least one embodiment the tubes are joined by the sea section even after carbonization and therefore can be considered to be intimately adjoined.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the coating materials are not melt-processible) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to Applicant's argument that the sea section of Haggard et al makes the carbon tubes physically separated from each other instead of contacting each other, the limitation "intimately adjoined" in its broadest reasonable interpretation includes any tubes that are fully joined to each other, regardless of whether another material is used to make that joinder.

In response to Applicant's argument that the sea section is dissolvable and therefore cannot be considered a binding agent, Haggard et al does not require that the sea section be dissolvable. Haggard et al specifically teaches that the core and/or the sea section are made of dissolvable polymer. This teaching provides three embodiments, one of which includes only the core as the dissolvable polymer.

8. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 4, 7, 10-13, 20, 21, and 23 over Haggard et al in view of Tour have been fully considered but they are not persuasive.

In response to Applicant's arguments regarding the independent claims not being fully taught by Haggard et al, look to the answers presented above.

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In response to Applicant's argument that the microwave radiation of Tour is applied after they are formed rather than before the tubes are carbonized as claimed, regardless of when the tubes are adjoined, the final product still includes intimately adjoined carbon tubes as that limitation is defined in its broadest reasonable interpretation of fully joined. The fact that the adjoining carbon tubes of Figure 7 of the instant invention share common walls is not germane to the claimed invention because intimately adjoined does not require the tubes share a common wall. Furthermore, once two materials of the same composition are crosslinked together as accomplished in the Tour reference the two walls of the individual tubes would not be distinguishable and would be considered one common wall, regardless of whether the walls were bound together before or after carbonization.

9. Applicant's arguments regarding the 35 U.S.C. 103 rejection of claim 8 over Haggard in view of Moy have been fully considered but they are not persuasive.

In response to Applicant's arguments regarding the independent claims not being fully taught by Haggard et al, look to the answers presented above.



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In response to Applicant's argument that the microwave radiation of Tour is applied after they are formed rather than before the tubes are carbonized as claimed, regardless of when the tubes are adjoined, the final product still includes intimately adjoined carbon tubes as that limitation is defined in its broadest reasonable interpretation of fully joined. The fact that the adjoining carbon tubes of Figure 7 of the instant invention share common walls is not germane to the claimed invention because intimately adjoined does not require the tubes share a common wall. Furthermore, once two materials of the same composition are crosslinked together as accomplished in the Moy reference the two walls of the individual tubes would not be distinguishable and would be considered one common wall, regardless of whether the walls were bound together before or after carbonization.

#### **Conclusion**

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action

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is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

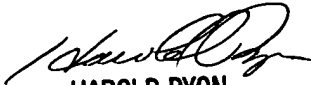
Christopher P Bruenjes

Examiner

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CPB

July 13, 2005

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

7/14/05